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Federal Communications Commission
Office of the Secretary

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Office of the Secretary
Federal Communications Commission
Washington DC 20554

Re: Comments; MM Docket 87-268
Advanced Television Systems and Their Impact
upon the Existing Television Broadcast Service

Ladies and Gentlemen:

These comments are offered from a perspective of over thirty years involvement in selecting and obtaining permission to use sites or towers, in selecting channels for translators and for LPTV stations and in solving interference problems.

Site Availability for Simulcast ATV Systems

Based upon the outline of the process of adding some 1500 new TV stations in the NPRM, I think there is cause for concern that the Commission does not appreciate the practical difficulties of finding space for a new antenna on a suitably located existing tower or clearing the hurdles attendant upon building a new tower in most metropolitan areas. If, as it is to be expected, most stations will want their simulcast ATV station to be essentially colocated with their existing transmission facility, some of the difficulties are:

1) All but the most recent towers were built under structural standards that are now considered obsolete and inadequate. Many towers which were considered to have reserve structural capacity when originally designed will not now be judged capable of handling additional antennas and transmission lines.

2) In many locations local governments are antagonistic towards existing towers. In extreme cases they will deny, or at least attempt to deny building permits even to add an antenna to an existing tower. The problem will be even worse if an existing tower must be strengthened or replaced.

3) In the case of stations with their antennas on the roofs of high-rise buildings two problems arise:

a) In many instances the structure for an additional major antenna on the roof or space for a transmitter on a top floor of the building is almost impossible to come by. In cases where there is more than one TV station on such a building and limited expansion room what space there is will presumably go to the highest bidder. This means that the more successful stations will have a significant economic advantage.

b) Most high-rise buildings that accommodate communications facilities have two-way land mobile equipment including receivers. The first concern in adding any additional transmitted signal at such a location is interference to a receiver associated with an existing communications system. The most common mechanism is third order intermodulation between transmitters. In short, where stations are on high rise buildings, a common arrangement in major cities, certain new channels simply can not be used on the same building.

4) It is probable that obstacles to new construction will be encountered at sites controlled by agencies of the US Government, particularly the Bureau of Land Management and the Forest Service, either from the desire of these agencies to limit construction or to maximize revenues.

The point concerning channels precluded from high-rise office buildings by intermodulation or other interference to receivers can be put to rest by allowing the existing stations maximum flexibility in selecting from the ATV channels assigned to an existing community. I recommend that, if a station demonstrates it has constraints on the channels it can use, it be given priority in choosing from the available channels.¹

I believe that if the transition to an ATV system through the simulcast route is to proceed on a schedule remotely approaching that outlined in the NPRM, the Commission, perhaps with the help of the Congress, will have to:

1) See to it that local governments cannot block the reasonable construction of new towers, the replacement or strengthening of existing towers, the adding of new antennas to towers that have the necessary structural capacity or the construction of equipment buildings. Block in this instance includes forcing application procedures, including local hearings that become so expensive or time consuming as to be prohibitive. It may well be that the Commission, in the furthering of a national objective, will have to completely pre-empt such matters.

1. Any proposal to build a new ATV station on channels 14 and 69 and near Land-Mobile facilities can be expected to draw vigorous and effective opposition.

2) Set up ground rules that prevent high-rise building owners from profiteering from the sudden doubling of demand for transmitter/antenna sites. Again in the spirit of achieving a national objective it might be desirable to devise a means of limiting the rent for a simulcast ATV station to no more than is being charged for the present station.

3) The Government as a whole should establish a policy that stations with sites on government land should get every help and be charged no additional rent when it comes time to build the simulcast ATV station.

Preserving LPTV Station and Translators

The references to preserving existing translator and LPTV stations in the NPRM is most encouraging. However, I think it is only realistic to assume that Commission personnel living in or near a major metropolitan area may not realize how truly important translators are to the segment of the public which depends upon them or the importance of the growing number of LPTV stations which serve ethnic minorities or others with specialized interests. At the risk of "preaching to the choir" I exhort the Commission to institute procedures and particularly have a policy of flexibility so that NO translator or LPTV station is forced off the air. The following specific suggestions will help this objective:

1) At present translators or LPTV stations (together LPTV) must protect the Grade B contour of "Full-service" stations, even when the actual service area is greatly foreshortened by terrain features that block the signal. The Commission has an LPTV "Terrain Shielding Waiver" policy that permits a showing of terrain signal blockage which stops the signal of a proposed new LPTV before it gets to the protected contour of an earlier station, either LPTV or "Full-service". It also permits the showing that an earlier LPTV has a foreshortened coverage area because of terrain features. Therefore, the point at which protection to the earlier station is required, in practice, is closer to this station than indicated by the theoretical protected contour. I suggest that the Commission allow displaced LPTV's to apply for a displacement channel, protecting full service stations only out to their realistic terrain foreshortened protected contour where terrain shielding demonstrably exists.

2) Channel 37 should be released, at least partially. It appears likely that the problem of preserving all LPTV's will be greatest in the major metropolitan areas. It also seems unlikely that serious radio astronomy work is being done within these areas. Part of the channel availability problem in such areas arises from the pairs of channels reserved for "land-mobile" fu-

these "Land-mobile" reservations exist that Channel 37 be made available for ATV simulcast channels and for LPTV's.²

3) While in the cities with "Land-mobile" reservations, two pairs of channels are reserved it is the stated intention of the Commission to only assign one pair for actual use. As part of the study to assign the ATV channels, the desired pair of "Land-mobile" channels should be selected and the other pair released to be available to LPTV's in need of a displacement move.

4) The "seven channel" taboo which is part of the current assignment plan appears to be of little practical importance at this time. An LPTV station in need of a displacement channel change as a result of the ATV assignments should be allowed to use a channel which would violate this taboo if no other channel is available. It is a compromise to be sure, but given the minimal interference which occurs in practice, using such a channel is better than forcing an LPTV to cease operation.

This opportunity to offer some suggestions to the Commission is appreciated. It is my hope that they may be of some small assistance in the difficult task of establishing the simulcast ATV channels.

Respectfully submitted,


Byron W. St. Clair

2. Note that neither Canada nor Mexico considers it necessary to reserve channel 37